

Control Efficacy of *Steinernema carpocapsae* Pocheon Strain against *Autographa nigrisigna* in Lettuce

**Hyeong Hwan Kim, Heung Yong Jeon, Ho Yul Choo¹,
Myoung Rae Cho, Han Ik Jang, Myoung Soon Yiem
and Pan Jung Ha²**

Horticultural Environment Division, National Horticultural Research Institute, RDA

¹Department of Applied Biology and Environment, Division of Applied Life Science,
Institute of Agriculture & Life Sciences, Gyoengsang National University

²Sesil Corporation Biological System, Limited

Autographa nigrisigna (Walker) (Lepidoptera: Noctuidae) is a major pest of cruciferae (chinese cabbage, radish etc.) and compositae (lettuce etc.) crops. Korean isolates of entomopathogenic nematodes, *Steinernema carpocapsae* Pocheon strain (Nematoda: Steinernematidae) was tested against *A. nigrisigna* in a lettuce greenhouse. Field applications were done on 8 August in Namyangju (Hydroponic culture), on 10 August in Hwaseong (Soil culture) and on 19 August in Suwon (Soil culture), and the treatments were as follows; (1) untreated control, (2) *S. carpocapsae* from Pocheon at 1.0×10^7 IJs/660m² (200 pyöng) ($=1.52 \times 10^7$ IJs/ha). All treatments were done by spraying 50~60 liter water. The test plots were treated 3 times at 3 days interval. The rate of decrease in the larvae numbers at 7 days after last nematode treatment were; 75.8% in Namyangju, 82.1% in Hwaseong, and 84.6% in Suwon, respectively. These data demonstrated the potential of *S. carpocapsae* as a biological control agent against *A. nigrisigna* in lettuce.